

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In the Matter of:)	
)	
Puget Sound Energy, Fredonia Generating Station,)	Docket No. CAA-10-2001-0107
)	
Mount Vernon, Washington,)	ADMINISTRATIVE ORDER
)	ON CONSENT
Respondent.)	
_____)	

ADMINISTRATIVE ORDER ON CONSENT

WHEREAS, PSE is currently operating two dual-fuel (natural gas and diesel fuel) fired Westinghouse W501D combustion turbines to generate electricity at its Fredonia Generating Station (“Fredonia”) near Mount Vernon, Washington;

WHEREAS, PSE proposes to install and operate two Pratt & Whitney (“P&W”) FT8 dual-fuel fired combustion turbines to generate electricity at Fredonia;

WHEREAS, PSE proposes to install and operate the two P&W FT8 turbines at Fredonia prior to obtaining a Prevention of Significant Deterioration (“PSD”) permit for the turbines from the United States Environmental Protection Agency (“EPA”) and the State of Washington Department of Ecology (“Ecology”) , and prior to obtaining a new source approval order from the Northwest Air Pollution Authority (“NWAPA”);

WHEREAS, the two P&W FT8 turbines at Fredonia would emit NO_x at the rate of approximately 100 tpy;

WHEREAS, under the federal PSD regulations found at 40 C.F.R. § 52.21(b)-(w) which have been incorporated into the Washington State Implementation Plan (“SIP”) at 40 C.F.R.

§ 52.2497, a “major stationary source” may not begin actual construction of a “major modification” without first obtaining a PSD permit;

WHEREAS, pursuant to 40 C.F.R. § 52.21(u), EPA has delegated to Ecology partial responsibility for administering the federal PSD regulations;

WHEREAS, under Ecology regulations for new source review (Washington Administrative Code (“WAC”) ch. 173-400), an owner or operator must file a notice of construction application and obtain an approval order and PSD permit prior to beginning actual construction on a major modification to a major stationary source;

WHEREAS, pursuant to the Revised Code of Washington (“RCW”) 70.94.053, NWAPA has jurisdiction to carry out the duties and exercise the powers provided in RCW 70.94;

WHEREAS, under Section 300 of the NWAPA regulations, it is unlawful for any person to cause or allow the construction, installation, establishment, or modification of an air contaminant source or emission unit, except excluded sources, unless a notice of construction and application for approval has been filed with and approved by NWAPA;

WHEREAS, installation of two P&W FT8 turbines at Fredonia will constitute a “major modification” to a “major stationary source” under the federal and state PSD provisions;

WHEREAS, the Governor of Washington signed a Proclamation on January 26, 2001, finding that vital public services, particularly affordable electrical power, are at risk and there exists a situation that threatens to disrupt or diminish the supply of energy to the extent that the public health, safety, and general welfare may be jeopardized, and declared an energy supply alert within the State of Washington;

WHEREAS, the Governor of Washington sent a letter to EPA dated April 5, 2000, stating that Washington was in a critical energy situation and that it was in the public interest to allow PSE to begin construction and operation of the P&W FT8 turbines at Fredonia prior to the issuance of a PSD permit so that PSE can provide much needed electricity both during the high demand summer months and when the cold weather season begins;

WHEREAS, the Northwest Power Planning Council, an organization created under the authority of the Northwest Power Act of 1980, and consisting of appointees by governors from the states of Washington, Oregon, Idaho, and Montana, issued a report entitled “Northwest Electricity Markets in 2001: Status and Proposed Action” on March 26, 2001, which states that there is a significant regional concern about electricity supplies for the rest of 2001 and beyond, and declared that “[s]iting and environmental agencies should expedite emergency siting of short-lead-time generation while still protecting the longer-term societal interests;”

WHEREAS, allowing PSE to install and operate two P&W FT8 turbines at Fredonia will allow PSE to generate 110 megawatts of electricity to supply its customers rather than pulling the electricity off the regional electric power supply grid;

WHEREAS, PSE has agreed to implement specific projects as described in Section IV of this Order that are designed to produce a net environmental benefit notwithstanding the installation and operation of two P&W FT8 turbines at Fredonia prior to PSE’s receiving a PSD permit and new source approval order;

WHEREAS, NWAPA believes that the increased emissions in criteria pollutants from Fredonia during the period of this Order would not cause any air pollution standards to be exceeded or cause any significant impact on public health;

WHEREAS, EPA, Ecology, NWAPA, and PSE agree that it will alleviate the electricity shortfall to allow PSE to generate additional electricity at Fredonia to supply its customers' demand, rather than pull electricity off the regional electric power supply grid, and that this Order is in the public interest;

NOW, THEREFORE, the Parties agree that:

I. Authority to Issue Order

1. EPA has the authority to issue this Order pursuant to Section 167 of the Clean Air Act, 42 U.S.C. § 7477. NWAPA has authority to issue this Order pursuant to Section 121 of the NWAPA Regulations.

II. Applicability and Binding Effect

2. This Order shall apply to and be binding upon the Parties, their successors and assigns, and their officers, directors, employees in their capacities as such, assignees, and delegates and all other persons and entities as provided for in Fed. R. Civ. P. 65(d).

3. From the Effective Date of this Order, until its termination, PSE shall give written notice and a copy of this Order to any successors in interest at least thirty (30) days prior to any transfer of ownership of any portion of or interest in Fredonia, or any assignment of rights concerning, or delegation of duties relating to, any of the operations of Fredonia. PSE shall condition any transfer, in whole or in part, of ownership of, operation of, or other interest in

Fredonia upon a binding written commitment to fully and successfully execute the terms and conditions of this Order. Simultaneously with such notice, PSE shall provide written notice of such transfer, assignment, or delegation to EPA, Ecology, and NWAPA. In the event of any such transfer, assignment, or delegation, PSE shall not be released from the obligations or liabilities of this Order unless EPA has provided written approval of the release of said obligations or liabilities.

III. Definitions

4. Unless otherwise expressly provided herein, terms used in this Order shall have the meaning given to those terms in the Clean Air Act and the regulations promulgated thereunder, and the Washington SIP and the regulations promulgated thereunder. In addition, the following definitions shall apply to the terms contained within this Order:

“BACT” means the Best Available Control Technology, as defined by Section 169(3) of the Act, 40 C.F.R. § 52.21(b)(12), and WAC 173-400-030(10);

“Ecology” means the State of Washington Department of Ecology;

“Effective Date” means the latter date, if any, of signature by the Signatories;

“Effective Period” means the period starting on the Effective Date and ending on the Termination Date;

“Fredonia” means the Fredonia Generating Station located near Mount Vernon, Washington;

“High Sulfur Diesel” means diesel fuel with a sulfur content of 0.5 weight percent or less;

“Low Sulfur Diesel” means diesel fuel with a sulfur content of 0.05 weight percent or less;

“NWAPA” means the Northwest Air Pollution Authority;

“Order” means this Administrative Order on Consent;

“Parties” means EPA, NWAPA, and PSE;

“PSE” means Puget Sound Energy, its successors and assigns, and its officers, directors, agents, servants, and employees in their capacities as such, assignees, and delegates and all other persons and entities as provided for in Fed. R. Civ. P. 65(d);

“Signatories” means EPA, Ecology, NWAPA, and PSE; and

“Termination Date” means the date in paragraph 26.

“Whitehorn” means the Whitehorn Generating Station located near Blaine, Washington;

IV. Terms and Conditions

5. PSE shall burn only natural gas or Low Sulfur Diesel in the two P&W FT8 turbines at Fredonia during the Effective Period of this Order. During the Effective Period, the use of Low Sulfur Diesel shall be limited to 240 hours per combustion turbine.

a. Prior to issuance of the PSD permit, PSE shall operate the P&W FT8 turbines at Fredonia, except during initial commissioning (not to exceed 50 hours of operation per P&W FT8 turbine) so as not to emit more than 5 parts per million by volume, dry (ppmdv) NO_x corrected to 15 percent oxygen (“O₂”) one-hour average and 10 ppmv carbon monoxide (“CO”) corrected to 15 percent O₂ one-hour average.

b. PSE shall conduct a performance test on one of the two P&W FT8 turbines at Fredonia to demonstrate compliance with the interim emission limits listed in paragraph 5.a., and submit a written report to each of the Signatories within 180 days of initial startup of those units. The performance testing shall be conducted using the appropriate test methods found in 40 C.F.R. Part 60, Appendix A.

6. PSE shall submit a PSD application that PSE believes is complete to EPA and Ecology as required by the Washington SIP within 30 days of the Effective Date of this Order. The PSD application shall propose selective catalytic reduction ("SCR") control technology as BACT for NO_x, and oxidation catalysts as BACT for CO, with corresponding emissions limits of not more than 5 ppm_{dv} NO_x corrected to 15 O₂ one-hour average and 10 ppm_{dv} CO corrected to 15 percent O₂ one-hour average.

7. The BACT analysis contained in the PSD permit application and its review by the regulatory agencies shall be conducted as it would be for any proposed project and shall not be prejudiced by the fact that the two P&W FT8 turbines will already be located at the site and in operation.

1. If BACT as determined through the PSD process and new source review is more stringent than SCR for NO_x and oxidation catalysts for CO on the two P&W FT8 turbines, PSE will implement BACT and comply with any emission limits established by the PSD permit and the new source review approval order within a reasonable time frame as determined by EPA, Ecology, and NWAPA.

9. PSE shall offset the NO_x, CO, sulfur dioxide ("SO₂"), particulate matter with

aerodynamic diameter less than 10 micrometers (“PM₁₀”), volatile organic compound (“VOC”) and toxic emissions actually emitted by the two P&W FT8 turbines at Fredonia during the period beginning on the Effective Date of the Order, and ending on the date of issuance of the PSD permit or 12 months after the Effective Date of the Order, whichever is earlier. None of the offsets generated by the actions taken in paragraphs 9.a., 9.b. and 9.c. below shall be considered “surplus” or “creditable,” as those terms are defined or used in EPA and Washington State regulations and guidance, or otherwise available to PSE to offset or net other activities at Fredonia or elsewhere. PSE will generate the offsets through the following projects:

a. Beginning July 1, 2001, or at the startup of the two P&W FT8 turbines at Fredonia, whichever is sooner, PSE will increase the water injection rate during natural gas operation so as to achieve a continuous NO_x exit gas concentration of less than 50 ppm_{dv} corrected to 15 percent O₂ at one of the existing GE Frame 7E turbines at Whitehorn throughout the Effective Period.

b. PSE will purchase 3,000,000 gallons of Low Sulfur Diesel instead of 3,000,000 gallons of High Sulfur Diesel for Whitehorn. The fuel substitution at Whitehorn should yield sufficient secondary PM₁₀ reductions to offset pre-permit PM₁₀ emissions from the P&W FT8 turbines at Fredonia that are not offset by the projects described in paragraph 9.c. (For purposes of the PM₁₀ offset calculation, it is assumed that a four-ton SO₂ reduction yields a one-ton PM₁₀ reduction.) In calculating compliance with this provision, PSE shall not credit any of the quantity of Low Sulfur Diesel supplied by the ARCO Cherry Point Refinery to the Whitehorn generating station by the ARCO refinery for the purpose of ARCO’s compliance with the terms

of Administrative Order on Consent Docket No. CAA-10-2001-0096. Also, in calculating compliance with this provision, emission reductions resulting from the diesel fuel substitution described above, shall not be double-counted towards both SO₂ and PM₁₀ reductions.

c. PSE will provide contributions not to exceed \$125,000 to the Whatcom County Opportunity Council/Skagit County Housing Authority so as to provide for the replacement of 40 old fireplaces/wood stoves with new clean-burning fireplaces or certified wood stoves. The contribution shall be adjusted as necessary so that the 40 replacement units are provided free of charge to low-income households that could otherwise not afford the units. PSE will maintain records, provided by Whatcom County Opportunity Council/Skagit County Housing Authority, to document the number of replacement units distributed to the public as a result of PSE's contribution.

10. The projects listed above are expected to achieve a net environmental benefit satisfactory to EPA, Ecology, and NWAPA. None of these projects may be required by any other agreement, order, or legal obligation to which PSE is subject. In addition to the projects described above, PSE will donate \$25,000 to the Whatcom 1000 Solar Rooftop Project. The donation shall be utilized to provide zero percent interest loans to residential and commercial property owners in both Whatcom and Skagit County towards the installation of renewable energy technologies, including solar systems. In the event that the projects described above do not achieve a net environmental benefit, PSE shall be obligated to implement additional projects approved in advance by EPA, Ecology, and NWAPA by no later than April 1, 2003.

11. PSE shall conduct a study to determine the feasibility of retrofitting the two Westinghouse W501D turbines at Fredonia and the two GE Frame 7E turbines at Whitehorn with dry low NO_x burner air pollution control technology. PSE will document the study in the form of a report, and PSE will submit the report to EPA, Ecology, and NWAPA within 30 days of the Effective Date of this Order.

12. PSE will conduct a stack test on the selected GE Frame 7E turbine at Whitehorn undergoing increased water injection to determine compliance with paragraph 9.a. PSE will also determine the minimum water injection rate needed to continuously achieve a NO_x exit gas concentration of less than 50 ppm_{dv} corrected to 15 percent O₂. PSE will conduct the stack test within 30 days of the increased water injection rate, as required in paragraph 9.a. of this Order, and PSE will submit a written report to each of the Signatories within 60 days of completion of the stack test. The stack testing shall be conducted using EPA Reference Method 7E found in 40 C.F.R. Part 60 Appendix A.

13. PSE will conduct a stack test on one of the P&W FT8 turbines at Fredonia for criteria and toxic pollutants based on a test program to be agreed upon between NWAPA and PSE. The test program will include air inlet (downstream of air filter but upstream of compressor) PM₁₀ sampling if practicable. PSE will submit a written stack test report to each of the Signatories within 180 days of initial startup. PSE may use the testing required by paragraph 5.b to satisfy the requirements of this paragraph for NO_x and CO.

14. EPA, Ecology, and NWAPA hereby reserve their right to be present during any

and all emissions testing conducted at Fredonia and Whitehorn. Accordingly, PSE shall provide EPA, Ecology, and NWAPA advance written notice of any proposed testing and grant reasonable access to Fredonia and Whitehorn. The advance written notice shall be received by EPA, Ecology, and NWAPA at least three business days prior to testing.

V. Effect of this Administrative Order

15. PSE's compliance with the terms and conditions of this Order resolves PSE's liability under the federal Clean Air Act, RCW ch. 70.94, and applicable NWAPA regulations for the installation and operation of the two P&W FT8 turbines at Fredonia without first applying for and obtaining a valid PSD permit or new source approval order. Compliance with this Order will not resolve PSE's liability for any violations unrelated to these particular PSD and new source review pre-construction requirements.

16. While this Order is in effect, PSE agrees not to dispute before the Environmental Appeals Board, in a court of law, or otherwise, the applicability of PSD and new source review to the PSE facility for the installation of the two P&W FT8 turbines at Fredonia.

17. The Parties reserve all other rights and remedies, legal and equitable, to enforce the provisions of this Order.

18. Nothing herein shall be construed to limit the power of EPA, Ecology, and NWAPA to undertake any action against Fredonia or any person in response to conditions that may present an imminent and substantial endangerment to the public health, welfare, or the environment.

19. This Order is neither a permit, license, authorization, nor a modification of

existing permits under any federal, state, or local law, and in no way relieves PSE of its responsibilities to comply with all applicable federal, state, and local laws and regulations, except as specifically provided in this Order.

20. EPA reserves all rights to review, comment on, and object to the proposed PSD permit regarding Fredonia.

VI. General Provisions

21. Any modification of this Order shall be by agreement of the Parties, with concurrence from Ecology, and in writing and shall not take effect until the written agreement is signed by all Signatories.

22. Each undersigned representative of the Parties certifies that he or she is authorized to enter into the terms and conditions of this Order and to execute and bind legally the Parties to this document.

23. This Order shall be effective upon the Effective Date. Signature by the representative of a Signatory on any copy of the Order shall constitute signature of the Order for determining the Effective Date.

24. Unless this Order states otherwise, whenever, under the terms of this Order, written notice is required to be given, or a report or other document is required to be sent by one Signatory to another, it shall be directed to the individuals specified at the addresses in paragraph 25, unless those individuals or their successors give notice of a change of address to the other Signatories in writing. All notices and submissions shall be considered effective upon receipt, unless otherwise provided.

25. The following addresses shall be used for notices and submissions required by this Order:

As to EPA:

Dan Meyer
U.S. Environmental Protection Agency Region 10
1200 Sixth Avenue, OAQ-107
Seattle, WA 98101-1128

As to PSE:

Chris Drechsel
Regulatory Specialist
Puget Sound Energy
P.O. Box 97034 OBC-14N
Bellevue, WA 98009-9734

As to Ecology:

Tapas Das
Washington State Department of Ecology
P.O. Box 47600
Olympia, WA 98504-7600

As to NWAPA:

Lester Keel
Northwest Air Pollution Authority
1600 South Second Street
Mt. Vernon, WA 98273-5202

VII. Termination of this Order

26. This Order shall terminate automatically upon issuance of the PSD permit for the installation and operation of the P&W FT8 turbines at Fredonia.

27. Within 30 days of completion of each project listed in paragraph 9 above, PSE shall provide notice to EPA, Ecology, and NWAPA of such completion, along with documentation substantiating such completion in accordance with this Order.

28. Notwithstanding paragraph 26 above, this Order shall terminate, after notice by EPA, if any of the following occurs: (1) PSE does not comply with the material provisions of this Order; or (2) an imminent and substantial endangerment to public health, welfare, or the environment has occurred which EPA believes requires termination of this Order. This Order terminates immediately upon receipt by PSE of the notice of termination.

VIII. Survival of Terms

29. Paragraphs 9.b, 9.c., 15, and 18 of this Order shall survive the termination of this Order, unless EPA terminates the Order pursuant to paragraph 28, in which case the Parties will retain the legal rights and responsibilities as they stood prior to the Effective Date of this Order.

IX. Signatories

30. The undersigned, representative of the Parties each certify that he or she is authorized to enter into the terms and conditions of this Order and to bind legally the Parties to this Order.

Date: April 6, 2001

/s/
Barbara McAllister, Director
Office of Air Quality
U.S. EPA, Region 10

Date: _____

/s/
Paul Wiegand
Vice President, Risk Management
& Strategic Planning
Puget Sound Energy

Date: _____

/s/
Jamie Randles, Control Officer
Northwest Air Pollution Authority

With concurrence from Ecology:

Date: _____

/s/
Mary Burg, Air Quality Program Manager
State of Washington Department of Ecology